Missouri
Department of
Natural Resources

Use Attainability Analysis

for

WBID 1276 Big Deer Creek

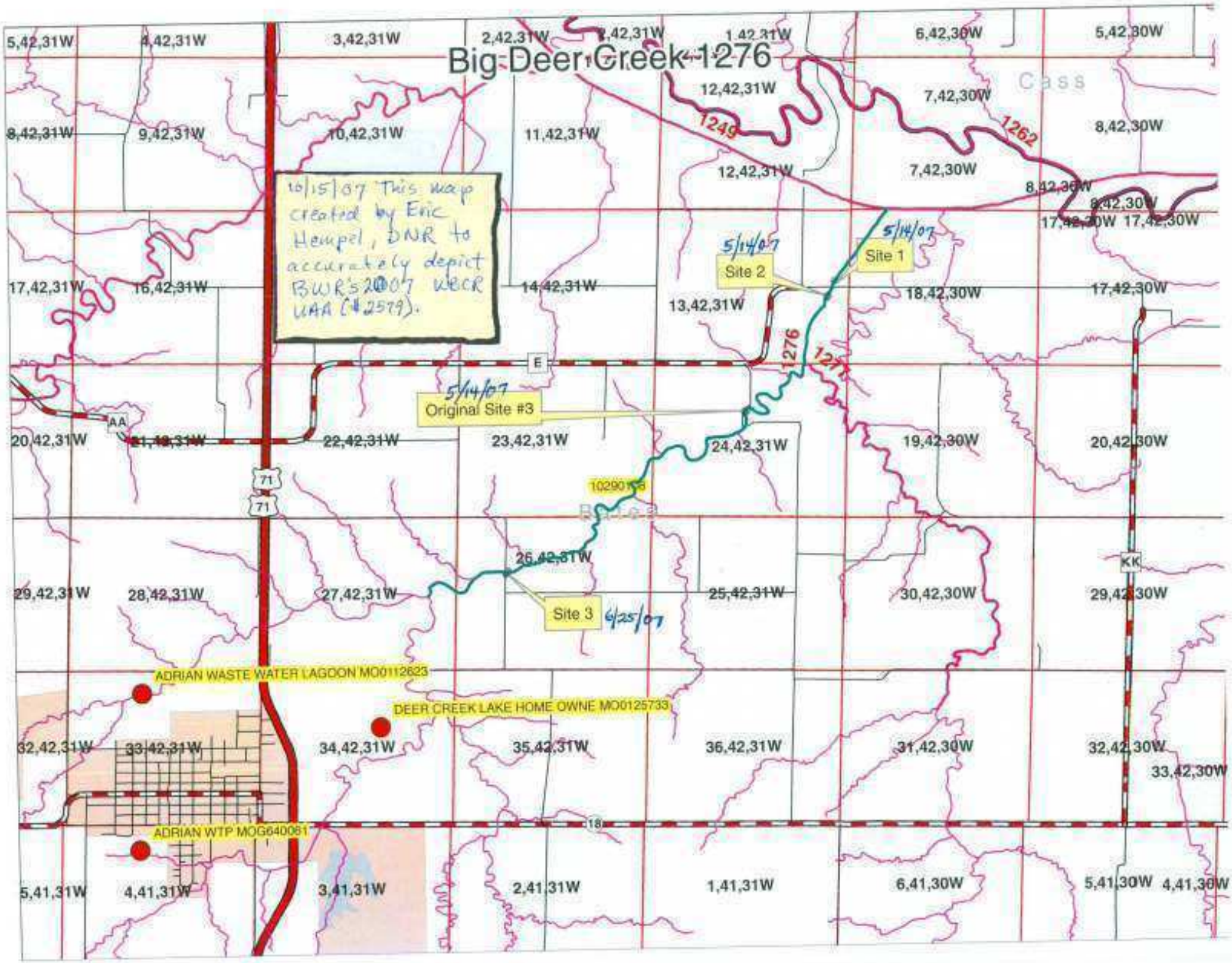
Submitted by
BWR

to
Missouri Department of Natural Resources
Water Protection Program

Date received: June 1, 2007

BWR conducted 2 surveys on this segment because the first was incomplete, so it required a second (follow-up) survey.

The combined survey sites are all shown on the following map.


Big Deer Creek 1276
10/15/07 This map created by Eric Heupel, DNR to accurately depict BWR's 2007 WECR UAA (#2579).
5/14/07
Site 1
5/14/07
Site 2
5/14/07
Original Site #3
Site 3
6/25/07
1276
1249
1262
1271
Cass
E
AA
71
71
18
KK
ADRIAN WASTE WATER LAGOON MO0112623
DEER CREEK LAKE HOME OWNE MO0125733
ADRIAN WTP MOG640061
5,42,31W
4,42,31W
3,42,31W
2,42,31W
1,42,31W
6,42,30W
5,42,30W
8,42,31W
9,42,31W
10,42,31W
11,42,31W
12,42,31W
7,42,30W
8,42,30W
17,42,31W
16,42,31W
14,42,31W
13,42,31W
18,42,30W
17,42,30W
20,42,31W
22,42,31W
23,42,31W
24,42,31W
19,42,30W
20,42,30W
26,42,31W
29,42,31W
28,42,31W
27,42,31W
25,42,31W
30,42,30W
29,42,30W
32,42,31W
33,42,31W
34,42,31W
35,42,31W
36,42,31W
31,42,30W
32,42,30W
33,42,30W
5,41,31W
4,41,31W
3,41,31W
2,41,31W
1,41,31W
6,41,30W
5,41,30W
4,41,30W

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet A - Water Body Identification

I. Water Body Information (For water body being surveyed)

Water Body Name (from USGS 7.5' quad):	BIG DEER CREEK
Missouri Water Body Identification (WBID) Number:	1276
8-digit HUC: 10290108	County: BATES
Upstream Legal Description (from Table H):	27, 42N, 31W
Downstream Legal Description(from Table H):	Mouth
Number of sites evaluated	3
List all sites numbers, listed consequently upstream to downstream:	~~3,2,1~~ 3,2,1

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest.

II. Subegmentation (fill this section out only in cases where subesgmentation is being proposed)

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)	
Upstream Coordinates: UTM X Y	Downstream Coordinates: UTM X Y

HORIZONTAL COLLECTION METHOD (Indicate the method used to determine the locational data.)

Global Positioning System (GPS)		Interpolation	
Static Mode		Topographic Map or DRG	
Dynamic Mode (Kinematic)		Aerial Photograph or DOQQ	
Precise Positioning Service		Satellite Imagery	
Signal Averaging		Interpolation Other	
Real Time Differential Processing			

HORIZONTAL ACCURACY ESTIMATE

GPS Data Quality		Interpolation Data Quality
FOM	± _____ Meters	Source Map Scale: 1:24,000 1:100,000 Other _____
EPE	± 22 Feet or ± _____ Meters	
PDOP		± _____ Feet or ± _____ Meters

III. Discharger Facility Information (list all permitted dischargers on the stream)

Discharger Facility Name(s):	Adrian WWTF
Discharger Permit Number(s):	MO 0112623

IV. UAA Surveyor (please print legibly)

Name of Surveyor	Sadie Robb	Telephone Number:	(816) 363-2696
Organization/Employer:	BWR		
Position:	Field crew		

Please verify that you have completed all sections, checked all applicable boxes and that everything is complete.

Signed: Sadie Robb **Date:** 5/14/2007

WBID# 1274
Site# 1

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(must be completed for each site)

Date & Time: 05/14/2007	Site Location Description (e.g., road crossing): Road crossing at E
Personnel (Data Collectors): Mark Griffin, Sadie Robb	
Current Weather Conditions: Sunny, mild	Facility Name: Adrian WWTF
Weather Conditions for Past 10 days: rainy	Permit Number: MO 0112023
Drought Conditions?: No drought ☑; Phase I ☐; Phase II ☐; Phase III ☐; Phase IV ☐; Unknown ☐	

Site Locations:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)

Site GPS Coordinates: UTM X: 094.28866° W Y: 38.44431° N

HORIZONTAL COLLECTION METHOD (Indicate the method used to determine the locational data.)

Global Positioning System (GPS)		Interpolation	
Static Mode		Topographic Map or DRG	
Dynamic Mode (Kinematic)		Aerial Photograph or DOQQ	
Precise Positioning Service		Satellite Imagery	
Signal Averaging		Interpolation Other	
Real Time Differential Processing			

HORIZONTAL ACCURACY ESTIMATE

GPS Data Quality		Interpolation Data Quality
FOM	± _____ Meters	Source Map Scale: 1:24,000 1:100,000 Other _____
EPE	± _____ Feet or ± _____ Meters	± _____ Feet or ± _____ Meters
PDOP		

Photos:

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
37	upstream landscape	38	downstream landscape	39	downstream

Uses Observed*: (Uses actually observed at time of survey.)

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☐ Wading	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☑ None of the above	☐ Other:

Describe: (Include number of individuals recreating, photo-documentation of evidence of recreational uses, etc. Use *Data Sheet D- Recreational Use Interview* when conducting interviews.)

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

☐ City/county parks	☐ Playgrounds	☐ MDC conservation lands	☐ Urban areas	☐ Campgrounds
☐ Boating accesses	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ No trespass sign	☐ Fence	☐ Steep slopes	☑ None of the above	☐ Other:

Comments: Riparian corridor between farm fields

Indications of Human Use*: (attach photos)

☐ Roads	☐ Rope swings	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Camping Sites		☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☑ Other: Trash

Comments:

Cross section Morphology CS1

Run 80%
Riffle 20%
Pool 0%

*** Page Two – Data Sheet B for WBID #** 1276**:**
Stream Morphology:

Upstream View's Physical Dimensions: Is there any water present at this view? ☒ Yes ☐ No

If so, is there an obvious current? ☒ Yes ☐ No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL					

Downstream View's Physical Dimensions: Is there any water present at this view? ☒ Yes ☐ No

If so, is there an obvious current? ☒ Yes ☐ No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL					

Substrate*: (These values should add up to 100%.)

40	% Cobble	30	% Gravel	0	% Sand	10	% Silt	20	% Mud/Clay	0	% Bedrock

Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site)

None

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☐ Clear	☐ Green	☐ Gray	☐ Milky	☒ Other: Light Brown
Bottom Deposit:	☐ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other: Silt
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☒ None	☐ Other:

Comments: Please attach any additional comments () to this form.

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

Please verify that you have completed all sections, checked all applicable boxes and that everything is complete.

Surveyor's Signature: [signature] Date of Survey: 5/14/07

Organization: B&R Position: Field Crew

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

(.5 increments)

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
CS1 a	.1m	.2m			1	
b		.3m			2	
c		.4m			3	
d		.5m	→ 7.3ppm (DO)		4	
e		.3m			5	RUN
f		.3m	[silt + boulders		6	
g		.3m			7	
h		.3m			8	
i		.3m	[23°C water]		9	
j		1m			10	
CS1 a	.1m	.1m			11	
b		.2m			12	
B c	(.4m between)	.2m	→ 8.4 ppm (DO)		13	
d		.1m	[		14	
e		.1m	[Algae]		15	
f		.1m	trout		16	Riffle
g		.1m	Sm. Riffle]		17	
h		0m			18	
i		.1m	[silt + boulders		19	
j		.1m	+ cobble →		20	
CS1 a	.1m	.1m			21	
b		.1m			22	
c	(.4m between)	.2m			23	
C d		.2m			24	
e		.3m			25	
f		.3m	→ 7.3 ppm (DO)		26	
g		.3m			.	RUN
h		.3m	[silt + stone		.	
i		.2m	ledge]		.	
j		.1m			n	

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: _____ **Date:** 5/4/07

Organization: BWR Position: field crew

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
CS1 a	.1m	.1m	[17m long transect]		1	
b	[every .8m]	.2m			2	
c		.2m			3	
d		.3m			4	
e		.3m	→ 7.4 ppm [DO]		5	
f		.3m			6	
g		.3m			7	
h		.3m			8	
i		.3m			9	
j		.3m			10	
a	.2	.1m (one)			11	
b	[every 1.1m]	.2m			12	
c		.2m			13	
d		.3m	→ 7.4 ppm [DO]		14	
e		.3m			15	
f		.2m			16	
g		.2m			17	
h		.1m			18	
i		.1m			19	
j		.1m			20	
a	.3m	.1m			21	
b	[every 1.1m]	.2m			22	
c		.1m			23	
d		.2m			24	
e		.3m	→ 7.5 ppm [DO]		25	
f		.3m			26	
g		.3m			.	
h		.2m			.	
i		.2m			.	
j		.1m			n	

RUN RUN RUN

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 5/14/07

Organization: BWR Position: field crew

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
G a	.3m	.1 m			1	
b		.1 m			2	
c	[.3m apart]	.1 m			3	
d		.2m			4	
e		.2m	→ 7.6 ppm [DO]		5	Riffle
f		.2m	[slight riffle]		6	
g		.2m			7	
h		.2m			8	
i		.1m			9	
j		.1 m			10	
CSI a	.3 m	.1 m			11	
b		.2 m			12	
c	[.7m apart]	.2 m			13	
H d		.2 m			14	
e		.2 m	→ 7.2 ppm [DO]		15	Run
f		.2 m			16	
g		.3 m			17	
h		.3m			18	
i		.3m			19	
j		.1m			20	
a	.1m	.1 m			21	
b		.2m			22	
c		.2m			23	
I d	[.9m apart]	.3m			24	Run
e		.3m			25	
f		.3m	→ 7.3 ppm [DO]		26	
g		.3m			.	
h		.3m			.	
i		.2 m			.	
j		.1 m			n	

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Jodie Polcyn **Date:** 5/14/07

Organization: BWR Position: Field Crew

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
a	.2m	.1m			1	
b	(1m apart	.2m			2	
c		.2m			3	
d		.2m			4	
e		.3m			5	
f		.4m	→ 7.3 ppm [DO]		6	
g		.3m			7	
h		.2m			8	
i		.3m			9	
j		.2m			10	
					11	
					12	
					13	
					14	
					15	
					16	
					17	
					18	
					19	
					20	
					21	
					22	
					23	
					24	
					25	
					26	
					.	
					.	
					.	
					n	

J TOO !!

RUN

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Jodie Robb **Date:** 5/14/07

Organization: BWR Position: Field crew

WBID# 1270
Site# 2

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(must be completed for each site)

Date & Time: 5/14/2007 11:45	Site Location Description (e.g., road crossing): road crossing upstream of #1
Personnel (Data Collectors): Mark Griffin Sadie Robb	
Current Weather Conditions: Sunny, warm	Facility Name: Adrian WWTF
Weather Conditions for Past 10 days: rainy	Permit Number: MO 0112623
Drought Conditions?: No drought ☑; Phase I ☐; Phase II ☐; Phase III ☐; Phase IV ☐; Unknown ☐	

Site Locations:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)

Site GPS Coordinates: UTM X: 094.28928° W Y: 38.44324° N

HORIZONTAL COLLECTION METHOD (Indicate the method used to determine the locational data.)

Global Positioning System (GPS)		Interpolation	
Static Mode		Topographic Map or DRG	
Dynamic Mode (Kinematic)		Aerial Photograph or DOQQ	
Precise Positioning Service		Satellite Imagery	
Signal Averaging		Interpolation Other	
Real Time Differential Processing			

HORIZONTAL ACCURACY ESTIMATE

GPS Data Quality		Interpolation Data Quality
FOM	± _____ Meters	Source Map Scale: 1:24,000 1:100,000 Other _____
EPE	± _____ Feet or ± _____ Meters	± _____ Feet or ± _____ Meters
PDOP		

Photos:

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
40	upstream landscape	41	downstream landscape		

Uses Observed*: (Uses actually observed at time of survey.)

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☐ Wading	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☑ None of the above	☐ Other:

Describe: (Include number of individuals recreating, photo-documentation of evidence of recreational uses, etc. Use *Data Sheet D- Recreational Use Interview* when conducting interviews.)

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

☐ City/county parks	☐ Playgrounds	☐ MDC conservation lands	☐ Urban areas	☐ Campgrounds
☐ Boating accesses	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ No trespass sign	☐ Fence	☐ Steep slopes	☑ None of the above	☑ Other: pasture

Comments:

Indications of Human Use*: (attach photos)

☐ Roads	☐ Rope swings	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Camping Sites		☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Other:

Comments:

Stream Morphology %

Run 50%.
Riffle 40%.
Pool 10%.

*** Page Two – Data Sheet B for WBID # 1276 :**
Stream Morphology:

Upstream View's Physical Dimensions: Is there any water present at this view? ☐ Yes ☐ No

If so, is there an obvious current? ☐ Yes ☐ No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL					

Downstream View's Physical Dimensions: Is there any water present at this view? ☐ Yes ☐ No

If so, is there an obvious current? ☐ Yes ☐ No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL					

Substrate*: (These values should add up to 100%.)

40	% Cobble	30	% Gravel	0	% Sand	10	% Silt	20	% Mud/Clay	0	% Bedrock

Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site)

None

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☐ Clear	☐ Green	☐ Gray	☐ Milky	☒ Other: Brown/gray
Bottom Deposit:	☐ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☒ None	☐ Other:

Comments: Please attach any additional comments () to this form.

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

Please verify that you have completed all sections, checked all applicable boxes and that everything is complete.

Surveyor's Signature: Jodie Robb Date of Survey: 5/14/07

Organization: BWR Position: Field Crew

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

S2s

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
a	.9m	.1m			1	
b	.3	.1m			2	
c	[every .4m]	.1m			3	
d		.2m			4	
e		.2m			5	
f		.2m	— 8.2 ppm [DO]		6	
g		.3m			7	
h		.3m	[~~run~~ glide]		8	
i		.3m			9	
j		.1m			10	
a	.2m	.1m			11	
b		.2m			12	
c		.2m	→ 8.2 ppm [DO]		13	
d		.1m			14	
e	[every .6 m]	.1m			15	
f		.1m	[run]		16	
g		.1m			17	
h		.1m			18	
i		.1m			19	
j		.1m			20	
a	.3m	.1m			21	
b		.2m			22	
c	[every .7m]	.2m	[run]		23	
d		.2m			24	
e		.2m			25	
f		.1m			26	
g		.2m			.	
h		.2m			.	
i		.2m	→ 8.3 ppm		.	
j		.1m	[DO]		n	

A

B

C

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Jodie Rabe **Date:** 5/14/07

Organization: BWR Position: Field crew

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
a	.3m	.1m			1	
b		.1m			2	
c		.1m			3	
d	[.2m apart]	.2m			4	
e		.2m			5	
f		.2m	→ 8.3 ppm [DO]		6	
g		.1m			7	
h		.1m	[riffle]		8	
i		.1m			9	
j		.1m			10	
a	2 meters	.1m			11	
b		.1m			12	
c	[.5m apart	.1m			13	
d		.1m	→ 8.3 ppm [DO]		14	
e		.1m			15	
f	(five	.1m	[riffle]		16	
g		.1m			17	
h		.1m			18	
i		.1m			19	
j		< .1m			20	
a	.1m	.1m			21	
b		.1m			22	
c	[.5m apart]	.2m			23	
d		.2m	→ 8.3 ppm [DO]		24	
e		.2m	[slight riffle]		25	
f		.1m			26	
g		.1m			.	
h		≤ .1m			.	
i		≤ .1m			.	
j		≤ .1m			n	

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Jadie Robb **Date:** 5/14/07

Organization: BWR Position: Field crew

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
G a	.1m	.1m			1	
b		.3m			2	
c	[.4m apart]	.4m			3	
d		.4m	→ 8.2 ppm [DO]		4	
e		.4m	[Run]		5	
f		.4m			6	
g		.3m			7	
h		.2m			8	
i		.1m			9	
j		.1m			10	
H a	.1m	.1m			11	
b	[.3m apart]	.2m			12	
c		.2m			13	
d		.2m			14	
e		.5m			15	
f		.6m	→ 8.1 ppm [DO]		16	
g		.4m			17	
h		.3m	[Run 4 below riffle]		18	
i		.3m			19	
j		.1m			20	
I a	.1m	.1m			21	
b		.1m			22	
c	[.4m apart]	.1m			23	
d		.1m			24	
e		.1m	→ 8.4 ppm [DO]		25	
f		.1m	[riffle]		26	
g		.1m			.	
h		.1m			.	
i		.1m			.	
j		< .1m			n	
*						

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Jodie Pobs **Date:** 5/14/07

Organization: BWR Position: Field crew

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
a	.3m	.1m			1	
b		.2m			2	
c		.4m			3	
d		.7m			4	
e	[.5 apart	.9m			5	
f		1.0m	→ 8.2 ppm [DO]		6	
g		>1m			7	
h		>1m	[pool		8	
i		>1m			9	
j		.3m			10	
k		.2m			11	
					12	
					13	
					14	
					15	
					16	
					17	
					18	
					19	
					20	
					21	
					22	
					23	
					24	
					25	
					26	
					.	
					.	
					.	
					n	

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this U datasheet is true and accurate.

Signed: _____ **Date:** 5/14/12

Organization: BWR Position: field crew

WBID# 1276
Site# 3

Field Data Sheets for Recreational Use Stream Surveys
Data Sheet B - Site Characterization
(must be completed for each site)

Date & Time: 6/25/07 1230	Site Location Description (e.g., road crossing): BRIDGE CROSSING AT CR 14004
Personnel (Data Collectors): BARTLETT & CASEY	
Current Weather Conditions: SUNNY, ~80°	Facility Name: ADRIAN WWTF
Weather Conditions for Past 10 days: FAIR	Permit Number: MO 0112623
Drought Conditions?: No drought ☒; Phase I ☐; Phase II ☐; Phase III ☐; Phase IV ☐; Unknown ☐	

Site Locations:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)

Site GPS Coordinates: UTM X: 38.41761 Y: 094.32040

HORIZONTAL COLLECTION METHOD (Indicate the method used to determine the locational data.)

Global Positioning System (GPS)		Interpolation	
Static Mode		Topographic Map or DRG	
Dynamic Mode (Kinematic)		Aerial Photograph or DOQQ	
Precise Positioning Service		Satellite Imagery	
Signal Averaging		Interpolation Other	
Real Time Differential Processing			

HORIZONTAL ACCURACY ESTIMATE

GPS Data Quality		Interpolation Data Quality
FOM	± _____ Meters	Source Map Scale: 1:24,000 1:100,000 Other _____
EPE	± _____ Feet or ± _____ Meters	± _____ Feet or ± _____ Meters
PDOP		

Photos:

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
1276-5,6	TRAN J-K	1276-7,8	TRAN B-A		

Uses Observed*: (Uses actually observed at time of survey.)

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☐ Wading	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☒ None of the above	☐ Other:

Describe: (Include number of individuals recreating, photo-documentation of evidence of recreational uses, etc. Use *Data Sheet D- Recreational Use Interview* when conducting interviews.)

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

☐ City/county parks	☐ Playgrounds	☐ MDC conservation lands	☐ Urban areas	☐ Campgrounds
☐ Boating accesses	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ No trespass sign	☒ Fence	☐ Steep slopes	☐ None of the above	☐ Other:

Comments:

Indications of Human Use*: (attach photos)

☒ Roads	☐ Rope swings	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Camping Sites		☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Other:

Comments: CR NE 14004

CHANNEL FEATURE %
RUN: 50 RIFFLE: ____
RIFFLE 50
POOL: ____

*** Page Two – Data Sheet B for WBID #** 1276 : #3

Stream Morphology:

Upstream View's Physical Dimensions: Is there any water present at this view? ☐ Yes ☐ No

If so, is there an obvious current? ☐ Yes ☐ No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL					

Downstream View's Physical Dimensions: Is there any water present at this view? ☐ Yes ☐ No

If so, is there an obvious current? ☐ Yes ☐ No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL					

Substrate*: (These values should add up to 100%.)

30 % Cobble	10 % Gravel	% Sand	40 % Silt	10 % Mud/Clay	10 % Bedrock

Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site)

CONSIDERABLE ALGAL GROWTH OVER SOLID SUBSTRATES, MACROPHYTE GROWTH ALONG WETTED MARGINS AND BANKS

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☐ Clear	☐ Green	☐ Gray	☐ Milky	☒ Other: BROWN, TURBID
Bottom Deposit:	☐ Sludge	☒ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☒ Foam	☐ None	☐ Other:

Comments: Please attach any additional comments () to this form.

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

Please verify that you have completed all sections, checked all applicable boxes and that everything is complete.

Surveyor's Signature: _____ Date of Survey: 6/25/07

Organization: BWR. CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

1276 #3

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
TA 1	WETTED WIDTH	<0.1		1	CHANNEL FEATURE:	
2	2.3	<0.1		2	RUN	
3		<0.1		3		
4	MEASUREMENTS	<0.1		4	DISSOLVED	OXYGEN:
5	0.23 m	<0.1		5		
6	APART	<0.1		6	5.66	ppm
7		<0.1		7		
8		<0.1		8		
9		<0.1		9		
10		<0.1		10		
				11		
TB 1	WETTED WIDTH	<0.1		12	CHANNEL	FEATURE:
2	6.5	0.3		13	POOL	
3		0.4		14		
4	MEASUREMENTS	0.4		15	DISSOLVED	OXYGEN:
5	0.65 m	0.4		16		
6	APART	0.4		17	[illegible]	ppm
7		0.3		18	4.18	
8		0.4		19		
9		0.2		20		
10		<0.1		21		
				22	CHANNEL	FEATURE:
TC 1	WETTED WIDTH	<0.1		23	POOL	
2	5.0	0.2		24		
3		0.3		25	DISSOLVED	OXYGEN:
4	MEASUREMENTS	0.3		26		
5	0.50 m	0.3		.	3.95	ppm
6	APART	0.2		.		
7		0.2		.		
8		0.1		n		
9		<0.1				
10		<0.1				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 6/25/07

Organization: BWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

1276 #3

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
1	WETTED WIDTH	< 0.1		1	CHANNEL	FEATURE :
2	6.0	0.3		2	POOL	
3		0.4		3		
4	MEASUREMENTS	0.4		4	DISSOLVED	OXYGEN :
5	0.60 m	0.4		5		
6	APART	0.4		6	3.55	ppm
7		0.3		7		
9		0.2		8		
9		0.1		9		
10		< 0.1		10		
				11	CHANNEL	FEATURE :
1	WETTED WIDTH	< 0.1		12	RUN	
2	5.5	0.2		13		
3		0.4		14	DISSOLVED	OXYGEN :
4	MEASUREMENTS	0.4		15		
5	0.55 m	0.3		16	3.93	ppm
6	APART	0.3		17		
7		0.3		18		
8		0.2		19		
9		0.1		20		
10		< 0.1		21		
				22	CHANNEL	FEATURE :
1	WETTED WIDTH	< 0.1		23	POOL	
2	6.4	0.2		24		
3		0.3		25		
4	MEASUREMENTS	0.4		26	DISSOLVED	OXYGEN :
5	0.64 m	0.4		.		
6	APART	0.5		.	3.83	ppm
7		0.5		.		
8		0.4		n		
9		0.4				
10		0.1				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: _____ **Date:** 6/25/07

Organization: BLR. CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

1276 #3

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
T_G 1	WETTED WIDTH	<0.1			1 CHANNEL FEATURE:	
2	9.0	0.2			2 POOL	
3		0.3			3	
4	MEASUREMENTS	0.5			4 DISSOLVED OXYGEN:	
5	0.90 m	0.5			5	
6	APART	0.5			6 2.53	ppm
7		0.6			7	
8		0.5			8	
9		0.4			9	
10		0.2			10	
		Ø			11	
T_H 1	WETTED WIDTH	<0.1			12 CHANNEL FEATURE:	
2	2.5	0.2			13 POOL	
3		0.2			14	
4	MEASUREMENTS	0.2			15 DISSOLVED OXYGEN:	
5	0.25 m	0.2			16	
6	APART	0.3			17 5.46	ppm
7		0.2			18	
8		0.2			19	
9		0.1			20	
10		<0.1			21	
					22	
T_I 1	WETTED WIDTH	0.1			23 CHANNEL FEATURE:	
2	3.0	<0.1			24 RUN	
3		<0.1			25	
4		<0.1			26 DISSOLVED OXYGEN:	
5	MEASUREMENTS	<0.1			.	
6	0.30 m	<0.1			. 5.27	ppm
7	APART	<0.1			.	
8		<0.1			n	
9		<0.1				
10		<0.1				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: _____ **Date:** 6/25/07

Organization: BWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

1276 #3

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
TJ 1	WETTED WIDTH	< 0.1			1 CHANNEL FEATURE:	
2	2.5	< 0.1			2 RUN	
3		< 0.1			3	
4	MEASUREMENTS	< 0.1			4 DISSOLVED OXYGEN:	
5	0.25 m	< 0.1			5	
6	APART	< 0.1			6 5.99	ppm
7		< 0.1			7	
8		< 0.1			8	
9		< 0.1			9	
10		< 0.1			10	
					11	
1	WETTED WIDTH	<0.1			12 CHANNEL	FEATURE:
2	4.0	0.1			13 RUN	
3		<0.1			14	
TK 4	MEASUREMENTS	<0.1			15 DISSOLVED	OXYGEN:
5	0.4 m	<0.1			16	
6	APART	<0.1			17 5.40	ppm
7		<0.1			18	
8		0.1			19	
9		0.2			20	
10		<0.1			21	
					22	
					23	
					24	
					25	
					26	
					.	
					.	
					.	
					n	

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: _____ **Date:** 6/25/07

Organization: BWR CORP. Position: ENV. SCI.

WBID# 1210
Site# 3

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(must be completed for each site)

Date & Time: 5/14/07 14:10	Site Location Description (e.g., road crossing): cropland, road crossing
Personnel (Data Collectors): Mark Griffith, Sadie Rapp	
Current Weather Conditions: Sunny, warm	Facility Name: Adnan WWTF
Weather Conditions for Past 10 days: rainy	Permit Number: MO 0112623
Drought Conditions?: No drought ☑; Phase I ☐; Phase II ☐; Phase III ☐; Phase IV ☐; Unknown ☐	

Site Locations:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)

Site GPS Coordinates: UTM X: 094.29723°W Y: 38.43255°N

HORIZONTAL COLLECTION METHOD (Indicate the method used to determine the locational data.)

Global Positioning System (GPS)		Interpolation	
Static Mode		Topographic Map or DRG	
Dynamic Mode (Kinematic)		Aerial Photograph or DOQQ	
Precise Positioning Service		Satellite Imagery	
Signal Averaging		Interpolation Other	
Real Time Differential Processing			

HORIZONTAL ACCURACY ESTIMATE

GPS Data Quality		Interpolation Data Quality
FOM	± _____ Meters	Source Map Scale: 1:24,000 1:100,000 Other _____
EPE	± _____ Feet or ± _____ Meters	± _____ Feet or ± _____ Meters
PDOP		

Photos:

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
43	upstream landscape	42	downstream		

Uses Observed*: (Uses actually observed at time of survey.)

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☐ Wading	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☑ None of the above	☐ Other:

Describe: (Include number of individuals recreating, photo-documentation of evidence of recreational uses, etc. Use *Data Sheet D- Recreational Use Interview* when conducting interviews.)

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

☐ City/county parks	☐ Playgrounds	☐ MDC conservation lands	☐ Urban areas	☐ Campgrounds
☐ Boating accesses	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ No trespass sign	☐ Fence	☐ Steep slopes	☑ None of the above	☐ Other:

Comments: pasture

Indications of Human Use*: (attach photos)

☐ Roads	☐ Rope swings	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Camping Sites		☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Other:

Comments:

*** Page Two – Data Sheet B for WBID #_____:** Run - 100% (20 m downstream of 1m high waterfall)
4 calm waters

Stream Morphology:

Upstream View's Physical Dimensions: Is there any water present at this view? ☐ Yes ☐ No

If so, is there an obvious current? ☐ Yes ☐ No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL					

Downstream View's Physical Dimensions: Is there any water present at this view? ☐ Yes ☐ No

If so, is there an obvious current? ☐ Yes ☐ No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL					

Substrate*: (These values should add up to 100%.)

30	% Cobble	30	% Gravel	0	% Sand	20	% Silt	20	% Mud/Clay	0	% Bedrock

Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site)

None

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☐ Clear	☐ Green	☐ Gray	☐ Milky	☒ Other: Brown/gray
Bottom Deposit:	☐ Sludge	☒ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☒ None	☐ Other:

Comments: Please attach any additional comments () to this form.

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

Please verify that you have completed all sections, checked all applicable boxes and that everything is complete.

Surveyor's Signature: Jodie Robb Date of Survey: 5/14/07

Organization: BWR Position: Field crew

CS 3

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
a	.3	.1m			1	
b		.3m			2	
c	[every .8m]	.5m			3	
d		.5m			4	
e		.7m			5	
f		.7m	→ 6.7 ppm [DO]		6	
g		.7m			7	
h		.8m	[Run]		8	
i		.6m			9	
j		.1m			10	
a	.2m	.1m			11	
b		.2m			12	
c	[every .9m]	.4m			13	
d		.5m			14	
e		.6m	→ 10.7 ppm [DO]		15	
f		.5m			16	
g		.4m	[Run]		17	
h		.3m			18	
i		.2m			19	
j		.1m			20	
a	.1m	.1m	[lots of concrete debris on W side]		21	
b		.4m			22	
c	[every 1m]	.6m	[Run]		23	
d		.7m			24	
e		.6m			25	
f		.8m			26	
g		1m	→ 6.4ppm [DO]		.	
h		1m			.	
i		.6m			.	
j		.1m			n	

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Jodie Robb **Date:** 5/14/07

Organization: BWR Position: Field Crew

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
D a	.1m	.1m			1	
b		.1m			2	
c		.3m			3	
d	[1m apart]	.6m			4	
e		.9m			5	
f		1m	→ 7.3 ppm [DO]		6	
g		>1m	[Run]		7	
h		.7m			8	
i		.4m			9	
j		.1m			10	
E a	.5m	.1m			11	
b		.5m			12	
c		.7m			13	
d	[.8m apart]	.7m			14	
e		.6m	→ 7.1 ppm [DO]		15	
f		.6m			16	
g		.6m	[Run]		17	
h		.5m			18	
i		.4m			19	
j		.1m			20	
F a	.1m	.1m			21	
b		.3m			22	
c	[.9m apart]	.3m			23	
d		.4m			24	
e		.4m			25	
f		.5m			26	
g		.6m			.	
h		.7m	→ 7.1 ppm [DO]		.	
i		.6m			.	
j		.2m	[Run]		n	

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Jodie Robb **Date:** 5/14/07

Organization: BWR Position: Field crew

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
G a	.1m	.1m			1	
b		.7m			2	
c	[1 m apart]	.8m	→ 7.0 ppm [DO]		3	
d		.7m			4	
e		.7m	[Run]		5	
f		.8m			6	
g		.6m			7	
h		.4m			8	
i		.2m			9	
j		.1m			~~10~~	
H a	0	.1m			11	
b		.6m			12	
c		.8m			13	
d	[.9m apart]	1m			14	
e		>1m			15	
f		>1m	→ 7.3ppm [DO]		16	
g		.7m			17	
h		.5m	[Run]		18	
i		.2m			19	
j		.1m			20	
I a	0	.1m			21	
b	[1.1 m apart]	.7m			22	
c		.9m			23	
d		.9m	→ 7.4ppm [DO]		24	
e		.7m	[Run]		25	
f		.6m			26	
g		.5m			.	
h		.5m			.	
i		.4m			.	
j		.1m			n	

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Jodie Rodd **Date:** 5/14/07

Organization: BVIR Position: Field crew

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
a	0	.1m			1	
b		.4m			2	
c		.7m			3	
d		.9m			4	
e		.9m → 7.7 ppm [DO]			5	
f		.8m			6	
g		.7m			7	
n		.6m			8	
i		.4m			9	
j		.1m			10	
					11	
					12	
					13	
					14	
					15	
					16	
					17	
					18	
					19	
					20	
					21	
					22	
					23	
					24	
					25	
					26	
					.	
					.	
					.	
					n	

[.9m apart]

[Run]

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 5/14/17

Organization: BWR Position: field crew

Upstream (Site 1) of Big Deer Creek WBID: 1276

Downstream (Site 1) of Big Deer Creek WBID: 1276

Upstream (Site 2) of Big Deer Creek WBID: 1276

Downstream (Site 2) of Big Deer Creek WBID: 1276

Upstream (Site 3) of Big Deer Creek WBID: 1276

Upstream (Site 3) of Big Deer Creek WBID: 1276

Downstream (Site 3) of Big Deer Creek WBID: 1276

Downstream (Site 3) of Big Deer Creek WBID: 1276

No pictures were taken at Original Site 3 due to camera malfunction

Field Data Sheet for Recreational Use Stream Survey

Data Sheet D—Recreational Use Interview

Stream Name BIG DEER CREEK (*WBID #* 1276)

I. Introduction

Date & Time (include AM or PM): 5-08-07

Interviewed: ☒ In person ☐ By phone ☐ By mail
(NOTE: If you are an Interviewee filling out this form to mail back to DNR, proceed to Question #1.)

Interviewee selected because (e.g., house next to stream; standing by stream, etc.) PROPERTY OWNER

Interviewer introduction to Interviewee: "My name is ✓, I work for ✓(*name of your employer*)____, and I am collecting information on how people use ___(*name of the stream*)____."

ASK:

1.) Are you willing to respond to a survey about this stream? (It will just take a few minutes.)
☒ Yes ☐ No If yes, list contact information for the interviewee below:
Legal name: SANDY TURNER
Current mailing address: RR 1, BOX 230 A, ADRIAN MO. 64720
Daytime phone number: (816) 297-7766
E-mail address (optional):

2.a.) Do you live in this area? ☒ Yes ☐ No
If yes, how many years? 2yrs

2.b.) If you don't live nearby, are you still familiar with this stream? ☐ Yes ☐ No
If yes, how many years?
If no, thank the individual for taking the time to talk to you and conclude the interview.

3.) Are you familiar with this particular stretch of the stream? (show them the map, pointing out local landmarks such as roads, bridges, property lines) ☒ Yes ☐ No
If yes, proceed to "II. Personal Use?".
If no, proceed to Section V.

II. Personal Use?

1.) Have you or your family personally used the stream for recreation since November 28, 1975?
☐ Yes ☒ No
If yes, proceed to #3.
If no, proceed to #2.

2.a.) List reasons stream not used.

2.b.) Proceed to "III. Witnessed Use?".

3.) How do you use the stream?

Whole Body Contact Recreation			
Swimming ☐	Tubing ☐	Snorkeling/Skin Diving ☐	Water Skiing ☐

If Interviewee (or family) used the stream for WBCR since Nov. 28, 1975, ask:

4.a.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)?_____

4.b.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol)._____

Secondary Contact Recreation				
Fishing ☐	Wading ☐	Boating ☐	Trapping ☐	Other: ☐ List:

If Interviewee (or family) used the stream for SCR since Nov. 28, 1975, ask:

4.c.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)?_____

4.d.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol)._____

III. Witnessed Use?

1.) Have you observed others using this stream for recreation since Nov. 28, 1975? ☐ Yes ☐ No

If yes, proceed to #2.
If no, proceed to, "IV. Anecdotal Use?".

2.) What kinds of uses have you witnessed?

Whole Body Contact Recreation			
Swimming ☐	Tubing ☐	Snorkeling/Skin Diving ☐	Water Skiing ☐

If Interviewee witnessed WBCR use since Nov. 28, 1975, ask the following questions:

2.a.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)?_____

2.b.) Where, exactly? Describe specific location *and mark on the map* (Seemap requirements in the protocol)._____

Secondary Contact Recreation				
Fishing ☐	Wading ☐	Boating ☐	Trapping ☐	Other: ☐ List:

If Interviewee witnessed SCR use since Nov. 28, 1975, ask the following questions:

2.c.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)?_____

2.d.) Where, exactly? Describe specific location *and mark on the map* (Seemap requirements in the protocol)._____

IV. Anecdotal Use?

1.) Have you heard about anyone using this stream since Nov. 28, 1975 for recreation – not seen or done yourself, but just heard about it? ☐ Yes ☐ No

If yes, proceed to #2.

If no, thank the individual for taking the time to talk to you and conclude the interview.

2.) What kind of uses have you heard about?

Whole Body Contact Recreation			
Swimming ☐	Tubing ☐	Snorkeling/Skin Diving ☐	Water Skiing ☐

If Interviewee heard of WBCR use since Nov. 28, 1975, ask the following questions:

2.a.) When did these uses take place (e.g., year(s)?; season?; only after a rain?) and how often (times/year)?_____

2.b.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol)._____

Secondary Contact Recreation				
Fishing ☐	Wading ☐	Boating ☐	Trapping ☐	Other: ☐ List:

If Interviewee heard of SCR use since Nov. 28, 1975, ask the following questions:

2.c.) When did these uses take place (e.g., year(s)?; season?; only after a rain?) and how often (times/year)?_____

_____

_____

2.d.) Where, exactly? Describe specific location *and mark on the* (See map requirements in the protocol)._____

_____

_____

_____

V. Others to Contact?

Can you recommend someone else we could contact that knows the stream? ☐ Yes ☐ No
If yes, that person's contact info (name, address, phone, directions?)_____

_____

_____

If no, thank the individual for taking the time to talk to you and conclude the interview.

VI. Additional Comments

1.) From the Interviewee: _____

_____

_____

_____

_____

_____

2.) From the Interviewer:_____

_____

_____

_____

_____

VII. Information on Interviewer

Has interviewer been trained by Missouri DNR to conduct UAA Interviews?
☐ Yes ☐ No If yes, how (check all that apply):
Workshop? (if so, enter date): _____
On-line training seminar? _____
Followed Interview Instruction Sheets?_____
Other_____

Interviewer Information:
Signature: _____
Printed Name:_____
Employer (where applicable):_____
Interviewer's phone #:_____E-mail: _____

Field Data Sheet for Recreational Use Stream Survey

Data Sheet D—Recreational Use Interview

Stream Name BIG DEER CREEK *(WBID #* 1276)

I. Introduction

Date & Time (include AM or PM): 9:00 AM 5-08-07

Interviewed: ☒ In person ☐ By phone ☐ By mail
(NOTE: If you are an Interviewee filling out this form to mail back to DNR, proceed to Question #1.)

Interviewee selected because (e.g., house next to stream; standing by stream, etc.) PROPERTY OWNER

Interviewer introduction to Interviewee: "My name is _____, I work for __(*name of your employer*)____, and I am collecting information on how people use __(*name of the stream*)____."

ASK:

1.) Are you willing to respond to a survey about this stream? (It will just take a few minutes.)
☒ Yes ☐ No If yes, list contact information for the interviewee below:
Legal name: JANICE & FRANK MCCULLEY
Current mailing address: RR#2, BOX 291 ARCHIE MO,
Daytime phone number: (816) 297-2621 Shop 816-297-2616
E-mail address (optional):

2.a.) Do you live in this area? ☒ Yes ☐ No
If yes, how many years? 16 years

2.b.) If you don't live nearby, are you still familiar with this stream? ☐ Yes ☐ No
If yes, how many years?
If no, thank the individual for taking the time to talk to you and conclude the interview.

3.) Are you familiar with this particular stretch of the stream? (show them the map, pointing out local landmarks such as roads, bridges, property lines) ☒ Yes ☐ No
If yes, proceed to "II. Personal Use?".
If no, proceed to Section V.

II. Personal Use?

1.) Have you or your family personally used the stream for recreation since November 28, 1975?
☐ Yes ☒ No
If yes, proceed to #3.
If no, proceed to #2.

2.a.) List reasons stream not used.

_____

_____

_____

2.b.) Proceed to "III. Witnessed Use?".

3.) How do you use the stream?

Whole Body Contact Recreation			
Swimming ☐	Tubing ☐	Snorkeling/Skin Diving ☐	Water Skiing ☐

If Interviewee (or family) used the stream for WBCR since Nov. 28, 1975, ask:

4.a.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)?_____

4.b.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol).

Secondary Contact Recreation				
Fishing ☐	Wading ☐	Boating ☐	Trapping ☐	Other: ☐ List:

If Interviewee (or family) used the stream for SCR since Nov. 28, 1975, ask:

4.c.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)?_____

4.d.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol).

III. Witnessed Use?

1.) Have you observed others using this stream for recreation since Nov. 28, 1975? ☐ Yes ☐ No

If yes, proceed to #2.
If no, proceed to, "IV. Anecdotal Use?".

2.) What kinds of uses have you witnessed?

Whole Body Contact Recreation			
Swimming ☐	Tubing ☐	Snorkeling/Skin Diving ☐	Water Skiing ☐

If Interviewee witnessed WBCR use since Nov. 28, 1975, ask the following questions:

2.a.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)?_____

2.b.) Where, exactly? Describe specific location *and mark on the map* (Seemap requirements in the protocol)._____

Secondary Contact Recreation				
Fishing ☐	Wading ☐	Boating ☐	Trapping ☐	Other: ☐ List:

If Interviewee witnessed SCR use since Nov. 28, 1975, ask the following questions:

2.c.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)?_____

2.d.) Where, exactly? Describe specific location *and mark on the map* (Seemap requirements in the protocol)._____

IV. Anecdotal Use?

1.) Have you heard about anyone using this stream since Nov. 28, 1975 for recreation – not seen or done yourself, but just heard about it? ☐ Yes ☐ No

If yes, proceed to #2.

If no, thank the individual for taking the time to talk to you and conclude the interview.

2.) What kind of uses have you heard about?

Whole Body Contact Recreation			
Swimming ☐	Tubing ☐	Snorkeling/Skin Diving ☐	Water Skiing ☐

If Interviewee heard of WBCR use since Nov. 28, 1975, ask the following questions:

2.a.) When did these uses take place (e.g., year(s)?; season?; only after a rain?) and how often (times/year)?_____

2.b.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol)._____

Secondary Contact Recreation				
Fishing ☐	Wading ☐	Boating ☐	Trapping ☐	Other: ☐ List:

If Interviewee heard of SCR use since Nov. 28, 1975, ask the following questions:

2.c.) When did these uses take place (e.g., year(s)?; season?; only after a rain?) and how often (times/year)?_____

2.d.) Where, exactly? Describe specific location *and mark on the* (See map requirements in the protocol)._____

V. Others to Contact?

Can you recommend someone else we could contact that knows the stream? ☑ Yes ☐ No
If yes, that person's contact info (name, address, phone, directions?)_____
LOWELL HUNHOLZ, ARCHIE MO. NEWKIRKS
If no, thank the individual for taking the time to talk to you and conclude the interview.

VI. Additional Comments

1.) From the Interviewee: _____

2.) From the Interviewer:_____

VII. Information on Interviewer

Has interviewer been trained by Missouri DNR to conduct UAA Interviews?
☐ Yes ☐ No If yes, how (check all that apply):
Workshop? (if so, enter date): _____
On-line training seminar? _____
Followed Interview Instruction Sheets?_____
Other_____

Interviewer Information:
Signature: _____
Printed Name:_____
Employer (where applicable):_____
Interviewer's phone #:_____E-mail: _____

Field Data Sheet for Recreational Use Stream Survey

Data Sheet D—Recreational Use Interview

Stream Name BIG DEER CREEK ***(WBID #*** 1276)

I. Introduction

Date & Time (include AM or PM): 9:30 AM 5-08-07

Interviewed: ☒ In person ☐ By phone ☐ By mail
(NOTE: If you are an Interviewee filling out this form to mail back to DNR, proceed to Question #1.)

Interviewee selected because (e.g., house next to stream; standing by stream, etc.) PROPERTY OWNER

Interviewer introduction to Interviewee: "My name is _____, I work for __(*name of your employer*)____, and I am collecting information on how people use __(*name of the stream*)____."

ASK:

1.) Are you willing to respond to a survey about this stream? (It will just take a few minutes.)
☒ Yes ☐ No If yes, list contact information for the interviewee below:
Legal name: NORVIN SHIPLEY
Current mailing address: RR 2. BOX 296, ARCHIE MO
Daytime phone number: (____)_____
E-mail address (optional):

2.a.) Do you live in this area? ☒ Yes ☐ No
If yes, how many years? 20+ YEARS

2.b.) If you don't live nearby, are you still familiar with this stream? ☐ Yes ☐ No
If yes, how many years?
If no, thank the individual for taking the time to talk to you and conclude the interview.

3.) Are you familiar with this particular stretch of the stream? (show them the map, pointing out local landmarks such as roads, bridges, property lines) ☒ Yes ☐ No
If yes, proceed to "II. Personal Use?".
If no, proceed to Section V.

II. Personal Use?

1.) Have you or your family personally used the stream for recreation since November 28, 1975?
☐ Yes ☒ No
If yes, proceed to #3.
If no, proceed to #2.

2.a.) List reasons stream not used.
NO PARTICULAR REASON, HAS KNOWLEDGE OF ADRIAN LAGOON

2.b.) Proceed to "III. Witnessed Use?".

3.) How do you use the stream?

Whole Body Contact Recreation			
Swimming ☐	Tubing ☐	Snorkeling/Skin Diving ☐	Water Skiing ☐

If Interviewee (or family) used the stream for WBCR since Nov. 28, 1975, ask:

4.a.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)?_____

4.b.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol).

Secondary Contact Recreation				
Fishing ☐	Wading ☐	Boating ☐	Trapping ☐	Other: ☐ List:

If Interviewee (or family) used the stream for SCR since Nov. 28, 1975, ask:

4.c.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)?_____

4.d.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol).

III. Witnessed Use?

1.) Have you observed others using this stream for recreation since Nov. 28, 1975? ☐ Yes ☐ No

If yes, proceed to #2.
If no, proceed to, "IV. Anecdotal Use?".

2.) What kinds of uses have you witnessed?

Whole Body Contact Recreation			
Swimming ☐	Tubing ☐	Snorkeling/Skin Diving ☐	Water Skiing ☐

If Interviewee witnessed WBCR use since Nov. 28, 1975, ask the following questions:

2.a.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)?_____

2.b.) Where, exactly? Describe specific location *and mark on the map* (Seemap requirements in the protocol)._____

Secondary Contact Recreation				
Fishing ☐	Wading ☐	Boating ☐	Trapping ☐	Other: ☐ List:

If Interviewee witnessed SCR use since Nov. 28, 1975, ask the following questions:

2.c.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)?_____

2.d.) Where, exactly? Describe specific location *and mark on the map* (Seemap requirements in the protocol)._____

IV. Anecdotal Use?

1.) Have you heard about anyone using this stream since Nov. 28, 1975 for recreation – not seen or done yourself, but just heard about it? ☐ Yes ☐ No

If yes, proceed to #2.

If no, thank the individual for taking the time to talk to you and conclude the interview.

2.) What kind of uses have you heard about?

Whole Body Contact Recreation			
Swimming ☐	Tubing ☐	Snorkeling/Skin Diving ☐	Water Skiing ☐

If Interviewee heard of WBCR use since Nov. 28, 1975, ask the following questions:

2.a.) When did these uses take place (e.g., year(s)?; season?; only after a rain?) and how often (times/year)?_____

2.b.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol)._____

Secondary Contact Recreation				
Fishing ☐	Wading ☐	Boating ☐	Trapping ☐	Other: ☐ List:

If Interviewee heard of SCR use since Nov. 28, 1975, ask the following questions:

2.c.) When did these uses take place (e.g., year(s)?; season?; only after a rain?) and how often (times/year)?_____

_____

_____

2.d.) Where, exactly? Describe specific location *and mark on the* (See map requirements in the protocol)._____

_____

_____

_____

V. Others to Contact?

Can you recommend someone else we could contact that knows the stream? ☐ Yes ☐ No
If yes, that person's contact info (name, address, phone, directions?)_____

_____

_____

If no, thank the individual for taking the time to talk to you and conclude the interview.

VI. Additional Comments

1.) From the Interviewee: _____

_____

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2.) From the Interviewer:_____

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_____

VII. Information on Interviewer

Has interviewer been trained by Missouri DNR to conduct UAA Interviews?
☐ Yes ☐ No If yes, how (check all that apply):
Workshop? (if so, enter date): _____
On-line training seminar? _____
Followed Interview Instruction Sheets?_____
Other_____

Interviewer Information:
Signature: _____
Printed Name:_____
Employer (where applicable):_____
Interviewer's phone #:_____E-mail: _____